

XXVIII. A NEW SPECIES OF *FREDERICELLA* FROM INDIAN LAKES.

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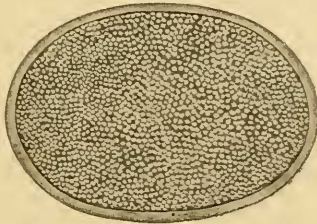
*Fredericella indica*, sp. nov.

*Zoarium* delicate, branching sparsely, recumbent or with upright (or rather dependent), lax branches consisting of two or three zoecia only.

*Zoecia* very slender, distinctly but slightly emarginate at the tip, with a strong furrowed keel running along the dorsal surface from the emargination; the external surface minutely roughened, sometimes with small sand grains adherent to it, practically colourless but imperfectly transparent.

*Lophophore* bearing about twenty tentacles, which are of moderate length and very slender; the web at their base very narrow.

*Alimentary canal* elongated and slender, practically colourless.



Statoblast of *Fredericella indica* (upper surface).  $\times 120$ .

*Statoblast* variable in shape and size but as a rule broadly oval, sometimes kidney-shaped, surrounded by a stout chitinous ring and smooth on the surface of the lower valve; the upper valve covered with minute prominences the base of which is somewhat star-shaped and the apex rounded. The prominences sometimes cover the whole surface almost uniformly but are sometimes sparser in the middle than towards the edges.

*Habitat*.—Western India; under stones in Igatpuri lake, Western Ghats, Bombay Presidency, and on lower surface of leaves of water-plants in Shasthancottah lake, Travancore; at both places taken by myself in November.

The most definite character in which this species differs from *F. sultana* is the ornamentation of the statoblast, but there also appear to be differences in the structure of the zoecium and the lophophore. From *F. tanganyikæ*, of which the statoblasts are

unknown, it differs in having emarginate zoëcia with a well-defined furrowed keel and in not being thickly encrusted with comparatively large sand grains.

At Shasthancottah the zoarium was found entangled with that of a delicate form of *Plumatella fruticosa* which closely resembled it externally. With a little care, however, it was found possible to disentangle the two species. The point is important as tending to explain Jullien's<sup>1</sup> belief that *Fredericella* is merely an abnormal form of *Plumatella*, and in this connection I may state that in Scotland I have found a statoblast of *Plumatella* adhering to and partially embedded in the ectocyst of *Fredericella*.

*Fredericella* has not hitherto been recorded from the Oriental Region, although *F. sultana* is said to occur in Australia as well as in Europe and North America.

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<sup>1</sup> *Bull. Soc. Zool. France*, vol. x, p. 121 (1893).